

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.114, and in light of the remarks which follow, are respectfully requested.

By the present amendment, claim 65 has been amended to delete “an alkyl group substituted with one or more amino groups,” “a -CN group,” and “a group selected from the group consisting of a -CH₂-NH₂ group, and a -COOH group” from the definition of X₁ and X₂. Claim 65 has also been amended to recite a substituent selected from the group consisting of alkyl groups having 1 to 6 carbon atoms and alkoxy groups having 1 to 6 carbon atoms. This amendment is supported by the specification, for example, page 11, lines 11-12. Claims 66 and 68 have been amended in view of the amendments to claim 65. Claim 68 has also been amended to further improve its clarity. In addition, claim 71 has been amended to further define X₁ and X₂. This amendment is supported by the present specification, for example, page 30, lines 6-11. Further, claims 72, 73, 75, 77-79, 81-84, 88, and 90 have been amended to further improve their form and/or to incorporate the formulae, which were inadvertently omitted in the previous Amendment. Claim 95 has been canceled without prejudice or disclaimer. Claims 1-64 were previously canceled. No new matter has been added.

Upon entry of the Amendment, claims 65-94 will be all of the claims pending in the application.

I. Request for rejoinder

Withdrawn claims 71-73, 79-83, 87 and 90-93 depend from claim 65, directly or indirectly, and thus are eligible for rejoinder, pursuant to MPEP 821.04. The Examiner is respectfully requested to rejoin claims 71-73, 79-83, 87 and 90-93 when claim 65 is found allowable.

II. Response to Rejection under 35 U.S.C. § 103(a)

Claims 65-68, 94 and 95 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Lamouille et al., "Hydrogenation of ethyl acetoacetate catalyzed by hydrosoluble BINAP derivatives," Tetrahedron Letters (2001), 42(4), 663-664, Ter Halle et al., "Synthesis and evaluation of poly-NAP-Ru, an heterogeneous enantioselective catalyst," Comptes Rendus de l'Academie des Sciences, Serie IIc: Chimie (2000), 3(7), 553-56, or WO 2000049028 (equivalent to U.S. Patent No. 6,610,875) to Lemaire et al.

Applicants respectfully traverse the rejection for the reasons of record. Particularly, none of the cited documents disclose or suggest a process for preparing the cited compounds. Nonetheless, to facilitate prosecution, Applicants have amended the claims to delete the language "an alkyl group substituted with one or more amino groups," "a -CN group," and "a group selected from the group consisting of a -CH₂-NH₂ group, and a -COOH group" from the definition of X₁ and X₂. None of the cited documents disclose or suggest the cited compounds. Therefore, even if the cited documents are combined, the combination still would not result in the subject matter of present claim 65.

The Advisory Action, in Item 11, states that:

applicants claimed diphosphine compound is obvious in view of the diphosphine compounds taught by Lamouille et al., Ter Halle et al. and Lemaire et al. Specifically, Lamouille et al. teach an isomeric diphosphine compound wherein the substituent is CH₂NH₂. Ter Halle et al. teach isomeric diphosphine compounds wherein the substituents are Br, CN and CH₂NH₂ while Lemaire et al. teach diphosphine compounds wherein the substituents are -NC, -CH₂NH₂ and -COOH. The Examiner suggests that Applicants delete the diphosphine compounds wherein the substituents are -NC, -CH₂NH₂ and -COOH and halogen.

In this regard, Applicants note that both Ter Halle et al. and Lemaire et al. describe diphosphine compounds substituted with -CN groups; however, they do not disclose

diphosphine compounds substituted with -NC groups. Furthermore, Ter Halle et al. discloses dihydroxyl (OH) and ditriflate (OTf) compounds wherein the substituents are Br (Scheme 1); however, it does not describe diphosphine compounds substituted with Br's.

In view of the foregoing, Applicants respectfully submit that claim 65 is patentable over the cited documents and thus the rejection should be withdrawn. Additionally, claims 66-68 and 94 depend from claim 65, directly or indirectly, and thus are patentable over the cited documents at least by virtue of their dependency.

III. Response to Claim Objection

Claim 74 was objected to as being dependent upon a rejected base claim.

Applicants respectfully submit that the rejection of claim 65, from which claim 74 depends, has been overcome as set forth above, and thus the objection should be withdrawn.

IV. Conclusion

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6686 at his earliest convenience.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: February 27, 2009

By: 
Fang Liu, Ph.D.
Registration No. 51283